



**Steve Troxler**  
Commissioner

**North Carolina Department of Agriculture  
and Consumer Services**  
*Standards Division*

**Stephen Benjamin**  
Director

March 16, 2005

**MEMORANDUM**

**TO:** Propane Dealers and Inspection Officials

**FROM:** Richard Fredenburg, LP-Gas Engineer

**SUBJECT:** PROTECTION OF LP-GAS CONTAINERS FROM VEHICLE IMPACT

As a result of recent Fire Prevention Code concerns and discussions with fire inspectors and representatives of the propane industry, we are better defining the requirements for protection of LP-Gas containers from impact by vehicles. This applies to all LP-Gas containers except those that are part of a stationary bulk plant as defined in NFPA 58 Sections 4.3.1 and 3.3.10, 2004 Edition (1.4.1 and 1.7.12, 2001 Edition).

NFPA 58 Section 6.6.1.2 requires LP-Gas containers to be protected from damage due to vehicle impact. Section 8.4.2.2 requires protection against vehicle impact in accordance with good engineering practice for LP-Gas cylinder exchange cabinets. The following forms of protection are considered as meeting these requirements.

Protection will generally be curbing or steel posts.

Steel posts set three feet deep in concrete, filled with concrete, spaced not more than four feet on center, and not less than four inches outside diameter meet the requirement for protection of containers. If the posts are protecting cylinder exchange cabinets, they shall not interfere with operation of the cabinet doors and in no case be closer than two feet from the cabinet. Posts protecting other containers shall be at least one foot from the container(s).

Substantial wooden timbers, such as railroad ties, treated to prevent decay may also be used for protection. They shall be set in a manner similar to steel posts.

Curbing shall be a minimum of six inches high and fixed in place. Use of pre-cast curbs is acceptable. The curbing shall be at least as wide as the cabinet(s) being protected. Curbs shall be at least three feet from any part of the container or exchange cabinet they are protecting and shall be placed to protect from each direction vehicles may be expected to approach. If traffic movement is only parallel to the curb, spacing less than three feet from curb to container or cabinet may be acceptable, depending on traffic patterns. Increased spacing may be required if vehicles with more overhang regularly pull up to the curbing.

Alternate means of protecting containers or exchange cabinets may be submitted for approval by this department. Technical documentation demonstrating equivalency or superiority shall be submitted along with the request. Alternate means may not be installed until reviewed and approved.